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(54) Title: APPARATUS AND METHOD OF ENCODING AND DECODING INFORMATION

(57) Abstract:

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DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference Jg-3042-PCT	IMPORTANT DECLARATION	Date of mailing(day/month/year) 05/04/2004
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Applicant MULTIPLEX PHOTONICS LIMITED		


This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. ☐ The subject matter of the international application relates to:
 - a. ☐ scientific theories.
 - b. ☐ mathematical theories
 - c. ☐ plant varieties.
 - d. ☐ animal varieties.
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
 - f. ☐ schemes, rules or methods of doing business.
 - g. ☐ schemes, rules or methods of performing purely mental acts.
 - h. ☐ schemes, rules or methods of playing games.
 - i. ☐ methods for treatment of the human body by surgery or therapy.
 - j. ☐ methods for treatment of the animal body by surgery or therapy.
 - k. ☐ diagnostic methods practised on the human or animal body.
 - l. ☐ mere presentations of information.
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.
2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☐ the description
 ☒ the claims
 ☐ the drawings
3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished or does not comply with the standard.
 ☐ the computer readable form has not been furnished or does not comply with the standard.
4. Further comments: .

See further information sheet

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Carole Emery
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The application does not satisfy the requirements of Art. 6 PCT because independent method claim 1 is not clear for several reasons. The claim suggests that during encryption a decode key based on a parameter is used. It is unusual to use a decode key during encryption. It is not clear how the decode key can be used as an undefined constraint in the equation. Furthermore the encryption algorithm is defined in terms of the result to be achieved, i.e. it should be selected such that the decoding would be ill-conditioned without the constraint. Finally it is not clear what could be the technical characteristics of an ill-conditioned algorithm.

The application does not satisfy the requirements of Art. 5 PCT since the description does not disclose a clear and complete embodiment of the invention. The skilled person cannot deduct whether the application deals with a symmetric cryptosystem or a cryptosystem using public keys. The description contains various unclear and incorrect statements see e.g. page 28, 1.1-5 and page 32, 1.17-20. Fig.1 and the corresponding description do not reveal how the information is encrypted since parameters a_1 , x_1 , a_2 , x_2 ...are not defined nor related to the input cleartext. The skilled person cannot deduct how the encrypted data may be decrypted by applying the same mathematical function and the same decoding key. Finally the concept of one-way encryption seems to have a reduced industrial applicability.

As a consequence of the above a meaningful search is not possible for the present application (Art. 17(2) PCT).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.